



2023 • Encrypted BTRFS Backups

I created a program I use for managing and replicating Snapshots created within the BTRFS filesystem across different hard drives. I use the dm-crypt kernel module for encryption.

2023 • Blamer & Patcher

I wrote bash scripts to more conveniently browse through the history of a git repository using git blame. I also created a patcher script that allows for the convenient toggling of individual git patches on/off.

2022 • Fedora Server

I set up my home server with Fedora Linux and BTRFS. I host various services on it, such as my git server, Syncthing, Minecraft server, sync servers, Nextcloud. I use a combination of cronjobs, Docker, and SSH to manage it.

2021 • Arch Installation Scripts

A series of shell scripts used for replicating my Arch Linux installation with software and configuration. Documented in Markdown and published on my website.

2021 • Dotfiles

I write my own configuration files, collecting useful bash functions, an efficient vim setup, window manager settings, and more effective methods of using Git from the terminal.

2022 • Spectotabs

Spectotabs is a musical analysis website that allows for the conversion between guitar tabs and piano sheets music.

2022 • Warehouse Management API

At a former workplace, I was responsible for developing a REST API using Spring Boot in Java.

2022 • Anki Templates

I created custom card templates for the flashcard tool Anki using HTML, CSS, and Javascript. The scripting allowed for learning complex data, such as sequences or grouped information. I also designed custom .svg icons.

2021 • My Website

I created a barebones portfolio website. I later switched to using the Hugo framework. I host it on GitHub Pages connected to a custom domain. I now also host documentation and notes on this site.

2020 • Discord Bot

I created a bot for the chat service Discord using Node.js. The bot could respond to chat messages, send and receive media, and execute commands.

2022 • Joplin-to-Anki

I wrote a program that took content from the note-taking program Joplin and exported them as Anki flashcards. Later, I also added the ability to export these as pages for my website.

2022 • Epcounter

I used Python and SQLite to keep track of the episode number of the shows I'm watching.

2021 • Project Exodos (BSc Thesis)

My BSc thesis was based on developing and using a program employing neural networks to classify information about computer usage for time tracking purposes. It analyzes collected data using statistical methods such as Principal Component Analysis. This data is fed into a Multilayer Perceptron model, allowing the user to log and visualize how they spend their time at the computer.

2020 • Client for Reddit

I wrote a custom Reddit client using the praw library that utilized vim-like keybindings, multithreading, and caching.

2020 • Client for Youtube

I created an RSS-based client for Youtube subscription management and upload notifications.

2020 • CoolMaze (Pathfinding Algorithm Visualization)

A fun little animation that randomly generates a solvable maze and traverses through it using pathfinding algorithms such as DFS or BFS, Dijkstra, or A*.

2020 • Weather Patterns Visualization

I submitted my work to the [Székelydata](https://szekelydata.com/) contest about visualizing historical weather patterns. I was a 3rd place winner. My software cleaned, summarized, and visualized large amounts of weather data over a map.

2019 • Lyric Generator

I trained a Recurrent Neural Network with song lyrics and managed to generate new, unique songs based on the input data.

2022 • Ispent

A simple expense-tracking program with categories and monthly reports.